

DERWENT-ACC-NO: 2005-518846

DERWENT-WEEK: 200553

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TITLE: Aqueous mixed acid solution for removing smut in which nitric acid and nitrogen component are not contained to prevent generation of nitrogen oxide in air and generation of total nitrogen in wastewater and method for removing the smut

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PATENT-FAMILY:

| PUB-NO                        | PUB-DATE      | LANGUAGE | PAGES | MAIN-IPC    |
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APPLICATION-DATA:

| PUB-NO        | APPL-DESCRIPTOR | APPL-NO        | APPL-DATE       |
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| KR2005022100A | N/A             | 2003KR-0059119 | August 26, 2003 |

INT-CL (IPC): C23G001/02

ABSTRACTED-PUB-NO: KR2005022100A

BASIC-ABSTRACT:

NOVELTY - To provide an aqueous mixed acid solution for removing smut, the aqueous mixed acid solution capable of obtaining excellent results compared with conventional smut removal method without use of nitric acid, and a method for removing smut using the aqueous mixed acid solution for removing smut.

DETAILED DESCRIPTION - Aqueous mixed acid solution for removing smut of an aluminum material comprises: sulfuric acid, hydrofluoric acid, hydrogen peroxide and H<sub>2</sub>O, wherein a composition for the solution comprises 5 to 60 weight % of sulfuric acid, 0.13 to 3 weight % of hydrofluoric acid, 0.5 to 20 weight % of hydrogen peroxide and the balance being H<sub>2</sub>O, wherein a composition for the solution comprises 10 to 20 weight % of sulfuric acid, 0.5 to 1 weight % of hydrofluoric acid, 1 to 3 weight % of hydrogen peroxide and the balance being H<sub>2</sub>O, where the solution further comprises 0.01 to 5 weight % of a hydrogen peroxide stabilizer containing 4-hydroxy-benzoic acid, phenyl urea or a mixture, where the hydrogen peroxide stabilizer further contains high stabilization hydrogen peroxide, wherein the solution further comprises 0.50 to 1.50 weight % of at least one or more surfactants selected from the group consisting of cationic surfactant, nonionic surfactant and anionic surfactant, and where the solution further comprises at least one or more compounds selected from the group consisting of organic alcohol series or metal peroxides of chromium and molybdenum.

Derwent Acc No 2005-518846

2 of 2

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS: AQUEOUS MIX ACID SOLUTION REMOVE SMUT NITRIC ACID NITROGEN  
COMPONENT CONTAIN PREVENT GENERATE NITROGEN OXIDE AIR GENERATE  
TOTAL NITROGEN METHOD REMOVE SMUT

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